

SYSTEM AND METHODS FOR REMOTELY ACCESSING A SELECTED GROUP OF ITEMS OF INTEREST FROM A DATABASE

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This application contains, for disclosure purposes, subject matter in the form of a microfiche appendix consisting of one microfiche slide with twenty-eight frames. The microfiche appendix sets forth non-limiting source code which is suitable for application with the invention.

BACKGROUND OF THE INVENTION

Electronic directories for identifying selected subscribers within a city are known in the prior art. For example, U.S. Pat. No. 4,974,170 describes one system which includes a fixed kiosk with an internal memory for storing locations such as businesses and historical sites within a predetermined distance from the kiosk. An input panel on the kiosk provides access to the data within the memory, and a map is generated by the system thereby locating the selected information from the kiosk.

However, such a system is inflexible. The map generated by the system is predefined; and thus the user cannot access or select information about businesses and historical sites outside of the predefined map. A user of the system must also know the exact location of the kiosk in order to use the system. Tourists and business travelers to the city are unlikely to know of the kiosk; and thus the kiosk system is of little use to such users. Further, a user must be physically present at the kiosk in order to access the information about the businesses and/or sites in the surrounding area.

In addition, the information stored within the kiosk's memory must be manually updated. This requires a series of cumbersome steps—including the physical acts of loading and downloading to the memory at the kiosk—to update the system in the event that information about a selected business changes, e.g., the business closes.

It is, accordingly, an object of the invention to provide systems and methods which reduce or remove the aforementioned difficulties.

It is yet another object of the invention to provide a system for remotely accessing selective items of interest from a database; and for displaying a geographic vicinity of the items of interest to the user selectively and at the remote location.

Still another object of the invention is to provide a system for remotely providing information identifying locations of selected items of interest at a selected destination location.

These and other objects will be apparent in the specification which follows.

SUMMARY OF THE INVENTION

As used herein, "items of interest" means services, products, geographic sites, architectural sites, stores, restaurants, public services, and other items which a user of the invention may wish to locate. "Port," "remote access port," "terminal," or "remote access terminal" are used interchangeably to denote a terminal, e.g., a personal computer with modem, from which a user of the invention can

access the database storing the information about the items of interest. "Remote database" or "database" are used herein to denote a database, e.g., a client server, which stores information for access by a user of the invention from a port. "Communication link" is used to denote means, including for example a telephone line, for communicating between the database and the port. "Geographic vicinity," and "map" are used to denote a geographic region which includes and surrounds selected items of interest.

In one aspect, the invention provides a system for remotely determining the position of a selected category of items of interest in a selected geographic vicinity from a database. A database stores information about a plurality of items of interest, including, for each of the items of interest, positional coordinates, a geographic vicinity, and at least one associated category. A communications link facilitates communications between a user of the system and the database. The system also provides for transmitting a portion of the information in the database to a user via the link upon receipt of a request signal representative of a selected category and geographic vicinity. Preferably, that transmitted portion of the information includes identification of a position for the items of interest within the selected category and geographic vicinity. The system further provides a port for remotely accessing the portion of information via the link. Specifically, the port generates the request signal in response to inputs by a user of the system; that signal being representative of the selected category and geographic vicinity. A user interface at the port accepts the inputs and communicates the position of each of the items of interest in the selected category and geographic vicinity to the user.

In accord with other aspects of the invention, the communications link can include several technologies, including a telephone link, satellite link, radio-frequency link, infrared link, internet link, facsimile link, fiber-optic link, coaxial cable link and television link. The database is, typically, a personal computer, mainframe, workstation, mini-computer, or digital data processor. To communicate the information to a user, the user interface can include a television, telephone, facsimile, audible speaker, and/or personal computer display. To accept user inputs at the port, the user interface can further include a television interface, telephone interface, facsimile interface, and/or a personal computer interface.

Preferably, the geographic vicinity includes certain spatial detail of the items of interest. For example, the geographic vicinity can include a map of the items of interest in the selected category, as well as street and landmark information displayed relative to the user's position at the remote port. As such, the set of positional coordinates generally identifies either (i) a location of a user of the system, or (ii) a destination location within the geographic vicinity.

In certain aspects of the invention, the information within the database further includes additional detail about at least one of the items of interest. Such a feature is advantageous in that, once the port displays the geographic vicinity with the items of interest, a user can thereafter select further additional detail about one or more of the items of interest. In this manner, for example, an item of interest such as a restaurant can display a picture of the interior of the restaurant to the user. The additional detail can include other multimedia information, such as video, prerecorded music, and digital pictures.

In still another aspect, the invention also communicates at least one advertisement associated with at least one of the items of interest to the user. As such, certain advertisers that are connected with the selected category of items of interest